



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**Office of Research and Development**  
**National Center for Environmental Assessment**

## **Postdoctoral Positions**

The Research Triangle Park Division of the National Center for Environmental Assessment (NCEA-RTP), a unit of the U.S. EPA Office of Research and Development (ORD), is seeking candidates for Federal, three-year postdoctoral research positions. NCEA, through its three divisions, serves within U.S.EPA as the national resource center for human health and ecological risk assessment, integrating hazard, dose-response, and exposure data and models to produce risk characterizations. NCEA occupies a critical position between laboratory or field researchers and environmental decision-makers by focusing on two key areas: the conduct of hazard and risk assessments of key environmental pollutants, and conduct of research to improve human and ecological risk assessment methods. NCEA-RTP focuses its work on improving assessment of criteria pollutants and air toxics under the requirements of the Clean Air Act, though our research on risk assessment methodology is broadly applicable to assessment of environmental contaminants of all types. To support this work, NCEA-RTP seeks candidates for non-laboratory postdoctoral positions in the following critical areas:

### **Fuels and Fuel Additives**

NCEA-RTP has long been active in the area of fuels and fuel additives (F/FAs), dealing with issues such as lead, MTBE, MMT, methanol, ethanol, and other F/FAs. It has become increasingly clear that F/FA issues need to be evaluated comprehensively in terms of their multi-media, life-cycle environmental impacts. We seek a postdoctoral scientist or engineer with analytic and other skills that can be applied to systematically identifying and characterizing the trade-offs among different F/FAs in terms of human health, ecological, and other dimensions of environmental impacts.

### **Toxicology/Health Science**

NCEA-RTP routinely conducts health hazard assessments on chemicals of importance to EPA's program offices. The conduct and improvement of these hazard and risk assessments requires an understanding of mechanisms of toxicity at the cellular and organ system levels. We seek individuals with training in mammalian toxicology, health science, or environmental science who can assist in evaluating toxicity data on environmental pollutants and applying this information to the protection of human health. Candidates should have a broad background in toxicology and an interest in the application of this background to assessment and to improving approaches to health risk assessment. We are especially interested in candidates with experience in respiratory physiology or respiratory effects from exposure to particles.

### **Biostatistics/Epidemiology**

The interpretation of toxicology and environmental exposure data used in the conduct of risk assessments routinely requires application of statistical interpretation. NCEA-RTP has the major role in development of Agency software to assist in evaluation of dose-response in toxicology and environmental data. This work is being broadened to include assessment of new methodologies, epidemiology data and population data. Additional work on probabilistic methods and on treatment of variability and uncertainty in toxicological data is also planned. Interested candidates should have a strong background in biostatistics and a willingness to assist others directly and through development of models to assure application of the best statistical approaches to interpretation of biological data.

### **Physiologically Based Pharmacokinetic Modeling**

Increasingly, pharmacokinetic data are being used in risk assessments to replace default assumptions for extrapolating dose-response information between species and between routes of exposure. Candidates for this position should have experience in PBPK modeling, its application to cross-species and cross-route extrapolation, and its application to assessing animal and human variance in biochemical, physiological and anatomical factors affecting risk. These skills will be used to improve the use of PBPK models in risk assessment and to identify criteria to assure that PBPK models are developed and evaluated in a scientifically sound manner.

Applicants with degrees in toxicology, pharmacology, environmental science, engineering, economics, biostatistics, biomathematical modeling, or related fields are encouraged to apply. These positions will begin immediately at a starting salary range of \$45,285-\$70,555 commensurate with qualifications. Those selected candidates will be eligible for a **full benefits package**. Preferred candidates will have earned a Ph.D. in one of the above disciplines in the past five years. United States citizens are preferred candidates, but non-citizens may be considered in the absence of qualified U.S. citizens. To apply, send a curriculum vitae, transcripts, letter of recommendation from your senior research advisor or other comparable official, additional reference(s), and a letter indicating your research focus to: Donna Wicker, National Center for Environmental Assessment (B243-01), ATTN: Post-Doctoral Positions, U.S. Environmental Protection Agency, Research Triangle Park, N.C. 27711. Applications will be received and evaluated by NCEA on an ongoing basis.

**The U.S.EPA is an Equal Opportunity Employer**  
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*Applying science to improve risk assessment and environmental decision making*